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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Besterman et al.  
Serial No.: 09/420,692  
Filed: 19 October 1999  
Entitled: MODULATION OF GENE EXPRESSION BY COMBINATION THERAPY  
Examiner: J. Epps  
Group Art Unit: 1645  
Attorney Docket No.: MET-015US1 (1002/016)

Assistant Commissioner for Patents  
Washington, DC 20231

**APPLICANTS' REPLY UNDER 37 C.F.R. §1.111 TO  
THE OFFICE ACTION MAILED 8 MAY 2002**

Sir:

This reply is responsive to the Office Action mailed 8 May 2002. A Petition for One Month Extension of time and the requisite fee are filed concurrently herewith. Please re-consider the above-identified application in view of the following amendments and remarks.

**Amendments**

Please amend claim 1 to read as follows.

1. (Amended) A method for inhibiting the expression of a human DNA methyltransferase gene in a cell comprising contacting the cell with an effective synergistic amount of an antisense oligonucleotide which inhibits expression of the gene, and an effective synergistic amount of a protein effector of human DNA methyltransferase.

Please amend claim 2 to read as follows.

2. (Amended) A method for treating a disease responsive to inhibition of a human DNA methyltransferase gene comprising administering to a human, which has at

least one cell affected by the disease present in its body, a therapeutically effective synergistic amount of an antisense oligonucleotide which inhibits expression of the human DNA methyltransferase gene, and a therapeutically effective synergistic amount of a protein effector of human DNA methyltransferase.

Please amend claim 3 to read as follows.

3. (Amended) A method for inhibiting tumor growth in a human comprising administering to a human, which has at least one neoplastic cell in its body; a therapeutically effective synergistic amount of an antisense oligonucleotide which inhibits expression of human DNA methyltransferase and a therapeutically effective synergistic amount of a protein effector of human DNA methyltransferase.

Please cancel claims 4, 5, 35-41 and 46-50.

#### Remarks

Claims 1-3, 6 and 11-34 remain pending. Claims 4, 5, 35-41 and 46-50 have been canceled without prejudice to their prosecution in a continuation application. Claim 1 has been amended to specify that the gene is human DNA methyltransferase. Claims 2 and 3 have been amended to specify that the subject of treatment is a human and that the gene is a human DNA methyltransferase gene. Each remaining rejection is separately addressed below.

#### Claims 1, 14, 16 and 22-23 are novel over Ju et al.

This rejection has been overcome by amendment. Base claim 1 has been amended to specify that the gene is DNA methyltransferase.

#### Claims 38-41, 46 and 48-50 have been canceled

Therefore, the rejection of these claims has been rendered moot.

#### Claims 1, 6, 11-14, 16, 18, 20, 22-26 and 32-34 are enabled by the specification.

Claims 4 and 5 have been canceled, thereby rendering this rejection moot as to claims 4 and 5. As to the remaining claims, they are supported by a generally accepted mouse model. Numerous patents have been granted on such mouse models (see e.g. U.S. Patents Nos. 5,919,772 and 6,054,439). Figures 19 and 20 of the specification clearly show a substantially better result